

What is claimed is:

1 1. A method for rendering an image on a display and producing magnification in the  
2 rendered image comprising:

3 selecting a set of polygon data to which to apply the magnification special effect;

4 retaining eye point  $\delta$  angle data within the vertex data passed to the a graphics  
5 rendering pipeline;

6 perturbing each eye point  $\delta$  angle value at each polygon fragment; and

7 incorporating perturbed texel angles, where each texel has a U and a V  
8 coordinate.

1 2. The method according to claim 1 wherein perturbing each eye point  $\delta$  angle value  
2 comprises multiplying eye point  $\delta$  angle by a value N, and providing a corresponding  
3 offset to each texel coordinate.

1 3. The method according to claim 1 wherein the texel coordinates are offset by an  
2 eye point angle.

1 4. The method according to claim 3 wherein the texel coordinates are offset by the  
2 eye point angle and by a value N.

1 5. A method according to claim 3 wherein accessing eye point  $\delta$  angle data for each  
2 texel to be produced comprises accessing data for selected vertices describing a polygon  
3 and further comprising interpolating eye point  $\delta$  angle data for each texel to be produced  
4 between texels including said vertices.

1 6. The method according to claim 5 further comprising resolving an eye point  $\delta$   
2 angle into eye point  $\delta$  angle x in an X-Z plane and eye point  $\delta$  angle y in a Y-Z plane.

1    7.    The method according to claim 6 wherein comprising producing magnification  
2    for a selected polygon on said display comprises displaying texels in the selected  
3    polygon and selecting texels based on the modified U and V mapping derived through  
4    using the eye point angles.

1    8.    A machine-readable medium that provides instructions which, when executed by  
2    a processor, cause said processor to perform operations producing a magnifying special  
3    effect in a computer display comprising:

4                selecting a set of polygon data to which to apply the magnification special effect;  
5                retaining eye point  $\delta$  angle data within the vertex data passed to the graphics  
6                rendering pipeline;  
7                perturbing each eye point  $\delta$  angle value at each polygon fragment; and  
8                providing perturbed texel angle data.

1    9.    A machine-readable medium according to claim 8 that provides instructions  
2    which, when executed by a processor, cause said processor to perform operations  
3    perturbing texel coordinates U and V using eye point  $\delta$  angle value comprises  
4    multiplying eye point  $\delta$  angle by a value N.

1    10.    A machine-readable medium according to claim 9 that provides instructions  
2    which, when executed by a processor, cause said processor to perform operations  
3    accessing data for the set of vertices describing a polygons and interpolating eye point  $\delta$   
4    angle data for each texel to be produced between texels including said vertices.

1    11.    A machine-readable medium according to claim 10 that provides instructions  
2    which, when executed by a processor, cause said processor to perform resolving an eye  
3    point  $\delta$  angle into eye point  $\delta$  angle x in an X-Z plane and eye point  $\delta$  angle y in a Y-Z  
4    plane.

1 12. A machine-readable medium according to claim 10 that provides instructions  
2 which, when executed by a processor, cause said processor to perform operations  
3 comprising producing magnification for a selected area of said display by modifying the  
4 U and V texel coordinates by offsetting them with the eye point angle x and y  
5 components.

1 13. A graphics pipeline converting polygon data to display data and further  
2 comprising a means to modify to texel coordinates according to eye point  $\delta$  angles to  
3 allow a portion of a rendered image generated from the polygon data to have a  
4 magnification effect applied.

1 14. The graphics pipeline according to claim 13 wherein said processor comprises a  
2 multiplier system for establishing relationship projection angle = N eye point  $\delta$  value.

1 15. The graphics pipeline of Claim 13 further comprising means applying the  
2 magnifying effect only to selected polygons.